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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/803,979 03/13/01 EBIHARA

J P 277940 557

EXAMINER

MM91/0928

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WASHINGTON DC 20005-3918

PEREZ, G ART UNIT	PAPER NUMBER
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2834
DATE MAILED:

09/28/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/803,979

Applicant(s)

EBIHARA ET AL.

Examiner

Guillermo Perez

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3,4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shiga et al. (U. S. Pat. 5,650,683) in view of Greenlee (U. S. Pat. 4,433,262).

Shiga et al. disclose an armature of a rotary electric machine comprising:
a rotary shaft (510);

an armature core (520) composed of a plurality of laminated sheets (521) through which the shaft (510) is inserted and a plurality of slots (524) at the outer periphery thereof; and

an armature coil (530) composed of a plurality of conductor segments (533,536) having in-slot portions being respectively inserted into the slots (524) and end portions forming a commutator; wherein

the armature core (520) comprises an anchoring portion (525) near the commutator for anchoring a part of each of the in-slot portions to the armature core (520). However, Shiga et al. do not disclose that the anchoring portion anchors a part of each of the in-slot portions to the armature core more strongly than other parts of the in-slot portions.

Greenlee discloses an anchoring portion (14) for anchoring a part of each of the in-slot portions (7) to the armature core (2) more strongly than other parts of the in-slot portions (7). Greenlee's invention has the purpose of securely locking the windings in operating position, while optimizing the cooling efficiency.

It would have been obvious at the time the invention was made to modify the armature of Shiga et al. and provide it with the anchoring portion disclosed by Greenlee for the purpose of securely locking the windings in operating position, while optimizing the cooling efficiency.

2. Claims 2-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shiga et al. in view of Greenlee as applied to claim 1 above, and further in view of Akira (JP 62247736).

Shiga et al. and Greenlee disclose an armature as described on item 1 above. However, neither Shiga et al. nor Greenlee disclose that the anchoring portion is disposed at a distance less than a half of the length of the armature core from an end thereof adjacent to the commutator. Neither Shiga et al. nor Greenlee disclose that the anchoring portion is disposed at least a space corresponding to one of the laminated sheet apart from the end adjacent to the commutator. Neither Shiga et al. nor Greenlee disclose that the anchoring portion comprises a belt-like pressed portion of the armature core. Neither Shiga et al. nor Greenlee disclose that the pressed portion has an outside diameter 0.08% - 0.6 less than the outside diameter of the rest of the armature core.

Akira discloses that the anchoring portion (3) is disposed at a distance less than a half of the length of the armature core (1) from an end thereof adjacent to the

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commutator. Akira discloses that that the anchoring portion (3) is disposed at least a space corresponding to one of the laminated sheet apart from the end adjacent to the commutator. Akira discloses that that the anchoring portion (3) comprises a belt-like pressed portion of the armature core (1). Akira discloses that that the pressed portion (3) has an outside diameter less than the outside diameter of the rest of the armature core (1). Akira's invention has the purpose of preventing the coil from jumping out easily.

It would have been obvious at the time the invention was made to modify the armature of Shiga et al. and Greenlee and provide it with the anchoring configuration disclosed by Akira for the purpose of preventing the coil from jumping out easily.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the pressed portion with an outside diameter 0.08% - 0.6 less than the outside diameter of the rest of the armature since it has been held that where the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation. *In re Aller*, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955).

Conclusion


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Guillermo Perez whose telephone number is (703) 306-5443. The examiner can normally be reached on Monday through Thursday and alternate Fridays.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nestor Ramirez can be reached on (703) 308 1371. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305 3432 for regular communications and (703) 305 3432 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308 0956.

Guillermo Perez
September 25, 2001


NESTOR RAMIREZ
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2000